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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/964,160	09/26/2001	John A. M. Cameron	WEAT/0150	9581

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EXAMINER

HALFORD, BRIAN D

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 01/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Applicati n No.

09/964,160

Applicant(s)

CAMERON, JOHN A. M.

Examiner

Brian D Halford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondenc address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-23, 26, 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 1-3, 9, 13-17, 24, 25 and 27-29 is/are rejected.
- 7) ☒ Claim(s) 4-8, 10-12, 30 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) Z. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 9, 13-17, 24-25 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans *et al.* in view of Paulsson. The patent to Evans *et al.* disclose an encapsulation (A) for two control lines and the like in columns 1-4; furthermore, the invention is depicted in Figures 1-4. As discussed in lines 45-61 and 7-14 of respective columns 1 and 2, an encapsulation (A) for control lines fabricated from elastomeric material is disclosed that is capable of withstanding excessive radial expansion forces. The encapsulation (A) resides on the outer surface of the production tubing (B). Evans *et al.* establish the applicability of the encapsulation in lines 11-14, 49-68 and 1-2 of respective columns 2, 3 and 4. Specifically, a potential blow out is averted when rubber packer (E) of the BOP deforms around the encapsulation (A) and production tubing (B), thereby affording a robust leak-proof seal. Furthermore, the control lines enveloped by the elastomeric material remain intact while the encapsulation (A) is subject to excessive radial expansion forces. As mentioned in lines 3-8, 30 and 34-68 of column 3, the encapsulation (A) contains a crescent-shaped sheath

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or housing (14) of elastomeric material and two metal tubulars (12, 13) that serve as fluid control lines. The geometry of the encapsulation is such that it possesses first arcuate wall and a second wall, which are connected to form a housing. Evans *et al.* outline additional advantages of the invention in lines 47-59 of column 4. Finally, Evans *et al.* disclose in lines 60-68 of column 4 that the size and shape of the encapsulation (A) may be modified as necessary; furthermore, the control lines may convey myriad types of control fluids.

Evans *et al.* fails to disclose, however, placing the encapsulation between an expandable tool and the wall of a wellbore. The patent application to Paulsson teaches placing sensors and an associated signal cable between an expandable tool and the wall of the wellbore. Figures 2, 3 and 6 illustrate a receiver (20) attached to a signal cable (30); furthermore, the aforementioned components reside against a substantially flat expandable section (50) of a fluid conduit (40). Paulsson elaborates on the invention in paragraphs [0040]-[0050]. When desired, the expandable section (50) is expanded thereby forcing the receiver into contact with the wellbore. Sensors (22) in the receiver (20) record data and subsequently transmit the data through the signal cable (30). As shown in Figure 3 and disclosed in paragraph [0041], the sensors (22) are encapsulated in a polyurethane casing (142). Additionally, the sensors (22) are further encapsulated in a semi-rigid rubber compound to, "absorb thermal and [sic] pressure strain." Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to place the protective encapsulation of Evans *et al.* between an expandable tool and the wall of a

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wellbore to avoid control line failure as a result of unexpected excessive radial forces during expansion of the tool.

***Allowable Subject Matter***

3. Claims 18-23, 26, 32 and 33 are allowed.
4. Claims 4-8, 10-12 and 30-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

5. Applicant's arguments, see pages 7-12, filed 06 October 2003, with respect to the rejection(s) of claim(s) 1-24 under *Castano-Mears et al.* and *Evans et al.* have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of *Evans et al.* in view of *Paulsson*

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Halford whose telephone number is (703) 306-0556. The examiner can normally be reached on M-F 10:30-8:00; alternate Fridays off.

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. . If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
David Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

bdh <sup>bdh</sup>  
January 6, 2004